

13 *Trichogramma ostriniae* takes on a new challenge: Western bean cutworm, an invasive pest in New York

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Abstract: Western bean cutworm (WBC), *Striacosta albicosta* (Smith), is an emerging pest of sweet corn, field corn, and dry beans in the Northeast, moving from its historic range in the western Great Plains through the Midwest and reaching New York in 2010. Economic damage was first seen in sweet corn in 2015. WBC larvae infest corn ears, rendering sweet corn unmarketable and reducing yield and quality in field corn. In dry beans, WBC feeds on developing beans. Organic growers of these crops do not have proven methods for controlling WBC. *Trichogramma ostriniae*, a commercially available egg parasitoid used against European corn borer in sweet corn and peppers, had been shown to parasitize WBC eggs in lab and field cage studies, but had not been tested in open field settings. We released Tost in organic sweet corn, field corn, and dry bean fields at a rate of 90,000 per acre beginning the week after first moth catch and ending the week after peak flight. We documented that *T. ostriniae* parasitized an average of 59% of egg masses and an average of 64% of eggs within an egg mass in sweet corn, but that level of parasitism was not enough to keep the fields below threshold. In field corn, we relied on comparisons of damage levels in release and non-release areas of fields to measure effectiveness. We did not see differences between release and non-release areas. In dry bean fields, damage levels were too low to reliably compare release and non-release areas.